



Birth Order Effects Revealed in Group Self-Organization

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Background: Alfred Adler suggested that a child's birth order (e.g., oldest, middle, youngest, only) has a strong impact on his/her personality.¹ However, a number of recent studies have failed to confirm this hypothesis.²

Motivation: Studies of birth order effects typically use psychometric tests. Can an effect be found using a more ecologically-valid method?

Question: Do friends and significant others tend to share the same birth order?

Experiment 1

Method: 141 CMU undergraduates provided birth order (only, oldest, middle, youngest) for themselves, their romantic partner (if any), their best friend, and their parents.

Birth Order of Romantic Partner

	only	oldest	middle	youngest
only	0 (0)	1 (2)	0 (1)	5 (2)
oldest	4 (4)	18 (16)	11 (10)	12 (16)
middle	3 (3)	13 (14)	10 (9)	14 (14)
youngest	4 (4)	17 (17)	10 (11)	19 (18)

$\chi^2(9, N=141) = 8.18, p > .2$

Birth Order of Best Friend

	only	oldest	middle	youngest
only	1 (1)	3 (3)	3 (2)	1 (3)
oldest	4 (3)	17 (15)	12 (12)	14 (17)
middle	1 (3)	12 (15)	11 (12)	22 (17)
youngest	4 (4)	18 (18)	15 (15)	20 (21)

$\chi^2(9, N=158) = 6.99, p > .2$

Birth Order of Father

	only	oldest	middle	youngest
only	0 (0)	1 (1)	3 (2)	1 (1)
oldest	2 (1)	16 (12)	17 (23)	14 (13)
middle	1 (2)	12 (15)	38 (30)	13 (17)
youngest	1 (1)	8 (8)	14 (16)	12 (9)

$\chi^2(9, N=153) = 9.22, p > .2$

References

- Adler, A. (1928) Characteristics of the first, second, and third child. *Children* 3(14)
- Pinker, S. (2003) *The Blank Slate*, Viking, New York.

Experiment 2 (N = 900)

Method: 900 CMU undergraduates provided detailed sibling information for themselves, their best friend, and their parents, allowing calculation of birth order as well as Birth Rank (# older sibs / # sibs).

Birth Order of Best Friend

	only	oldest	middle	youngest
only	4 (2)	18 (18)	10 (13)	17 (17)
oldest	10 (13)	129 (112)	73 (80)	102 (109)
middle	9 (9)	82 (80)	83 (57)	69 (77)
youngest	12 (11)	83 (102)	77 (73)	114 (99)

Birth Order: $\chi^2(9, N=872) = 14.41, p = .11$

Birth Rank: $N = 792, r = .10, p < .01$

Birth Order of Father

	only	oldest	middle	youngest
only	1 (1)	7 (5)	6 (9)	4 (4)
oldest	8 (6)	59 (51)	90 (96)	36 (21)
middle	8 (13)	102 (111)	222 (211)	93 (90)
youngest	10 (7)	57 (58)	107 (110)	48 (47)

Birth Order: $\chi^2(9, N=794) = 10.42, p > .2$

Birth Rank: $N = 814, r = .08, p = .02$

Birth Order of Best Friend

	only	oldest	middle	youngest
only	117 (117)	79 (79)	21 (21)	81 (81)
oldest	101 (90)	63 (61)	15 (16)	50 (62)
middle	25 (28)	21 (19)	8 (5)	17 (19)
youngest	68 (77)	47 (52)	13 (14)	88 (53)

Birth Order: $\chi^2(9, N=794) = 12.14, p = .2$

Birth Rank: $N = 302, r = .14, p = .02$

Birth Order of Father

	only	oldest	middle	youngest
only	35 (33)	48 (45)	27 (32)	44 (43)
oldest	42 (38)	51 (52)	43 (37)	42 (50)
middle	23 (24)	27 (34)	31 (24)	33 (32)
youngest	37 (41)	62 (57)	33 (40)	81 (54)

Birth Order: $\chi^2(9, N=639) = 10.38, p > .2$

Birth Rank: $N = 383, r = .06, p = .28$

Conclusion: There is a tendency for people of similar birth orders/ranks to form social relationships. This is consistent with the hypothesis that birth order affects personality. However, other explanations are possible, and birth rank only accounts for approximately 1% of the variance in these experiments.